

**Publication of Patent Application****Showa 55-168359****Practically Novel Design Registration Application****Showa 54 May 21<sup>st</sup>****Patent Office Chief****1. Design Name****Fog-Proof Mask****2. Inventors**

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**5. Registration of the attached documents**

(1) Detailed description of the invention	1 copy transmitted
(2) Figures	1 copy transmitted
(3) Application description copy	1 copy transmitted
(4) Power of attorney	1 copy transmitted

Sealed and verified

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**JP 55-168359**

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**Detailed description of the Invention****1. Name of the Invention****Fog-Proof Mask****2. Scope of the claims of the practically novel design**

A fog-proof mask that is a mask body, which has a transparent viewing window, where an anti-fogging agent is coated on the transparent viewing window, and on this coated surface a film is adhered.

**3. Detailed Explanation of the Design**

In the case of respiration (breathing) masks used in people operating in locations where there is a generation of toxic gases, like rescuers or coal miners, etc., miners, at the time when there are worn on and used, there are many instances when fogging of the transparent viewing window occurs through the breathing of the person who wears them, and the transparent viewing becomes difficult.

In order to eliminate such drawback, in the past, immediately prior to using the respiration mask, it has been introduced into a container and an anti-fogging agent has been coated on the transparent viewing window, and then the mask has been put on. However, in the case of such fog-proofing method because of the fact that manual handling is necessary for the coating of the anti-fogging agent, it is not appropriate for using and wearing in emergency situations, and it is not used in emergency situations. Also, immediately after the anti-fogging agent has been coated it has exceeding flowability properties, and the anti-fogging agent flows quickly and falls, and because of that there has been the drawback point that it has been said that the anti-fogging effect can be sustained for only a short period of time.

The present design (invention) is an n invention that suggests an anti-fogging mask in order to solve the above described previous technology drawback points.

Here below, based on the presented diagrams, the practical implementation examples of the present design are explained, and there are the following: (1) is the mask body, (20) is the transparent viewing window where a transparent plastic plate or a glass plate are placed, (3) is the breathing tube that introduces oxygen or purified air in the inside of the

mask body (1), (4) is the breathing tube that expels to the outside of the mask body (1) the air that has been breathed by the person wearing on the mask body (1), and the speaking plate (5), (6) is the anti-fogging agent coated on the inner surface of the transparent viewing window (2), (7) is the resin film that is adhered onto the coated surface of the anti-fogging agent (6).

In the case of the anti-fogging mask that has a structure formed according to the above described, it can be stored and kept in a state where the resin film (7) has been adhered onto the anti-fogging agent (6) coated on the inner surface of the transparent viewing window (2), and in an emergency situation etc., the film (7) can be peeled off and removed and the mask can be used and worn on.

According to the present invention, besides the mask body that is shown according to the above-described practical example, as long as it is mask body that has a transparent viewing window, it can be used in any inside water, or on land, etc., locations. Also, besides respiration devices, it can be appropriately used in other types of applications. Also, regarding the anti-fogging agent, its coating is not limited to only the inner surface of the transparent viewing window, and it is also possible to be coated on the outer surface, or on both the inner and the outer surfaces and these are good options. Regarding its coating, besides the method whereby the anti-fogging agent is coated on the transparent viewing window and after that the film is adhered, it is also a good option if the method is used where it is coated on the film material and this film is adhered so that its coated surface is pressed against the transparent viewing window.

The present invention has a structure as described here above, and at the time of the use of the mask, only the film is removed and it can be used and because of that even in emergency situations it is ready to be used within a satisfactory time period and thus is appropriate to use in emergency cases. Also, a film material is adhered onto the coated surface of the anti-fogging agent and because of that during the storage of the mask the anti-fogging agent absorbs moisture and the decrease of the anti-fogging effect is prevented and not only that but also the scratching or damage of the surface coated with the anti-fogging agent is prevented and the dispersing of the anti-fogging agent is prevented. Also, at the time when the film is adhered the anti-fogging agent is firmly adhered onto the transparent viewing window and because of that even when the film is removed it does not easily flow and fall, and compared to the case where, according to the previous technology, the anti-fogging agents is sprayed on the transparent viewing window prior to the use of the mask, it is possible to maintain the anti-fogging effect for prolonged period of time, etc., various results are achieved.

#### **4. Brief Explanation of the Figures**

Figure 1 represents a front view of the anti-fogging mask according to the present invention. Figure 2 represents an enlarged sectional view diagram of the transparent viewing window of the same mask.

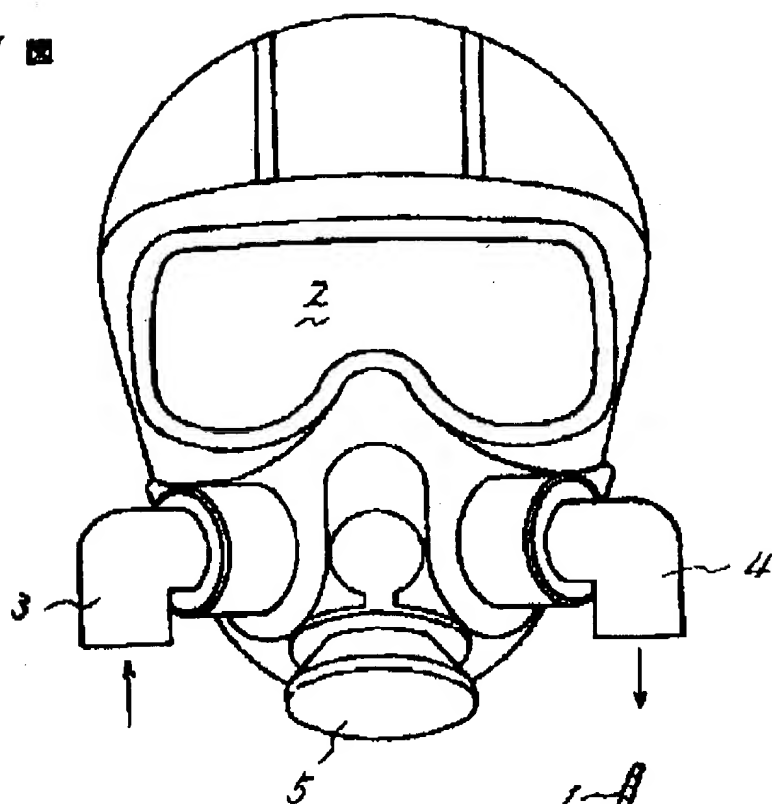
(1).....mask body, (2).....transparent viewing window,  
(6) .....anti-fogging agent, (7).....resin film.

**Patent Assignee: Koba, Hidefumi**

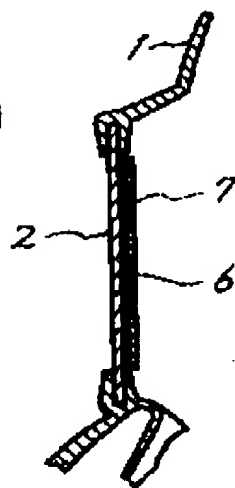
*Translated by Albena Blagev ((651) 735-1461 (h), (651) 704-7946 (w))*

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第 1 圖



第 2 圖



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公開実用 昭和55—168359



## 実用新案登録願

昭和54年5月21日

特許庁長官 鑑 査 二 殿

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5. 添付書類の目録

✓(1) 明細書 1通  
✓(3) 願書副本 1通

✓(2) 図  
✓(4) 委任状



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方式  
審査

## 明 細 書

1. 発明の名称 防曇マスク

2. 実用新案登録請求の範囲

透視窓を有するマスク体において、透視窓に防曇剤を塗布し、その塗布面にフィルムを貼り付けて成る防曇マスク。

3. 発明の詳細な説明

火災現場に出動する救助防員や炭坑などで働く坑夫、その他有毒ガスが発生する現場で作業する者などが着用する呼吸マスクは、着用時に着用者の呼吸により透視窓が曇り、透視が困難になることが多いものである。

このような欠点を除去するため、従来は呼吸マスクを使用する直前に、容器に入っている防曇剤を透視窓に塗布して、着用していたが、このような防曇方法では、防曇剤の塗布に手間取るため、緊急の着用に間に合わず、非常に不便であり、また防曇剤を塗布した直後は非常に流動性があり、防曇剤が早く流れ落ちるため、防曇効果の持続が短いという欠点があった。

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**公開実用 昭和55—168359**

本考案は、上記従来の諸欠点を解消しうる防護マスクを提供しようとするものである。

以下図面にもとづいて本考案の実施例を説明すると、(1)はマスク体で、透明なプラスチック板やガラス板をはめた透視窓(2)と、マスク体(1)内へ酸素や清浄な空気を供給する吸気管(3)と、マスク体(1)の着用者の呼気をマスク体(1)外へ排出する呼気管(4)と、伝声板(5)とを有する。(6)は透視窓(2)の内面に塗布した防曇剤、(7)は、<sup>（付加）</sup>面に塗布した防曇剤(6)の塗布面に貼り付けた樹脂フィルムである。

上記の構成より成る防護マスクは、透視窓(2)の内面に塗布された防曇剤(6)に樹脂フィルム(7)を貼り付けた状態で保管して置き、緊急使用の場合などにフィルム(7)を剥離して着用する。

本考案においては、上記実施例に示したマスク体のほか、透視窓を有するマスク体であれば、水中、陸上を問わずどのような場所で使用することも用することができ、また呼吸器以外の各種用途に使用するものも採用することができる。また、防曇剤は、透視窓の内面に限らず、外面または





内外面に塗布してもよく、その塗布は、透視窓に塗布してからフィルムを貼り付けるほか、フィルムに塗布し、そのフィルムの塗布面を透視窓に押しつけるようにして貼り付けてもよい。

本発明は、叙上のように構成され、マスクの着用時にフィルムをはがすだけでよいから、緊急の着用にも十分間に合い、非常に便利である。また防曇剤の塗布面にフィルムを貼り付けたから、マスクの保管中に防曇剤が吸湿して防曇効果が低下するのを防ぐばかりでなく、防曇剤塗布面の損傷及び防曇剤の飛散を防止する。またフィルムが貼り付けられている間に、防曇剤が透視窓に固く付着するため、フィルムをはがしても、容易に流れ落ちるようなことはなく、従来のマスクを使用する直前に透視窓に防曇剤を吹きつける場合に比べて防曇効果を長時間持続することができるなどの顕効果を有する。

#### 4. 図面の簡単な説明

第1図は本発明に係る防曇マスクの正面図、第2図は同マスクの透視窓の拡大断面図である。

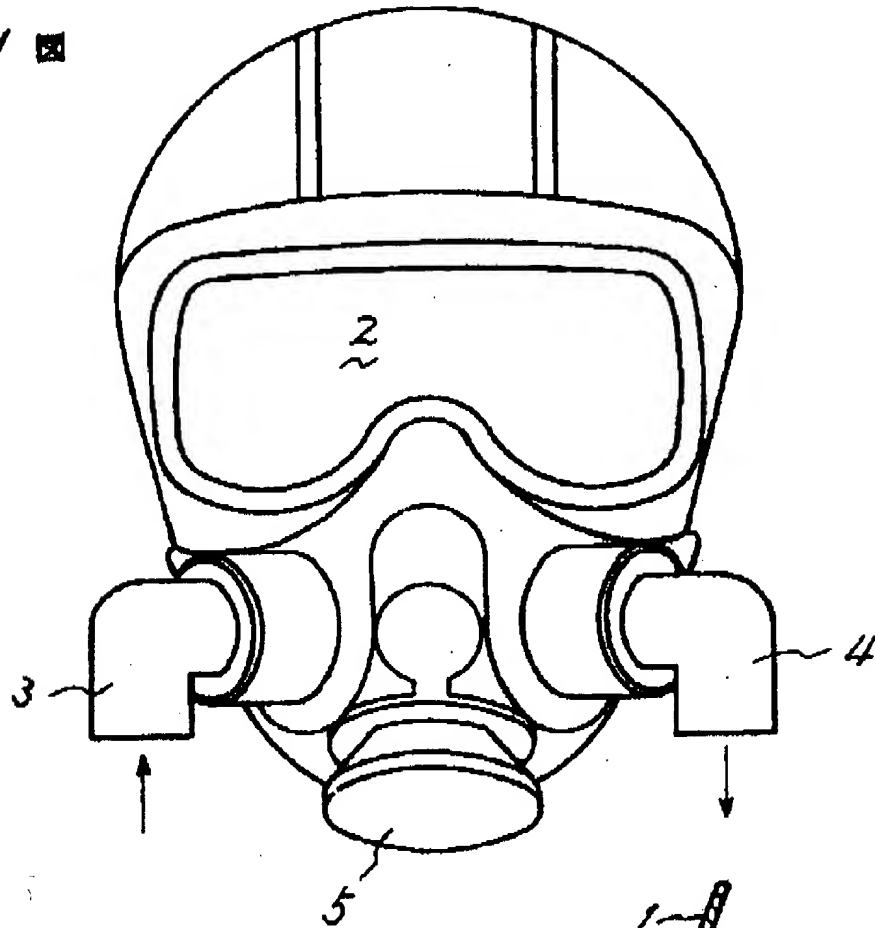
公開実用 昭和55—168359

(1) … マスク体 , (2) … 透視窓 , (6) … 防曇剤 , (7) … 樹脂フィルム。

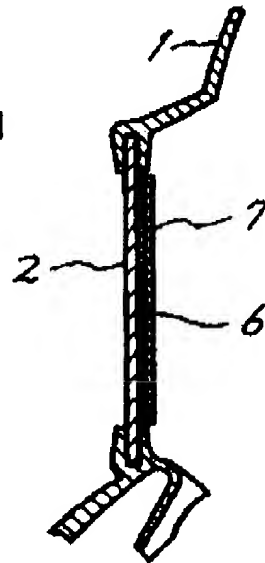
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(4)

第 / 圖



第 2 圖



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